

IN THE CLAIMS:

1. (Currently Amended) A cleaning apparatus for cleaning a member used in the semiconductor field, the apparatus comprising:

an endless conveyor comprising a plurality of belt sections, each belt section being located at a spaced location from an adjacent belt section;

5 a housing, said endless conveyor extending through said housing;

an air curtain producing means for producing an air curtain at one end of said housing;

a first water curtain producing means for producing a first water curtain in said housing;

a second water curtain producing means for producing a second water curtain in said housing;

10 a third water curtain producing means for producing a third water curtain in said housing, said air curtain and said first water curtain defining a precleaning section of said housing, said first water curtain and said second water curtain defining a cleaning section of said housing, said second water curtain and said third water curtain defining a rinsing section of said housing, said third water curtain and another end of said housing defining a drying section of  
15 said housing;

a first plurality of first ~~one nozzle or plural~~ nozzles located in said precleaning section;

a second plurality of second nozzles located in said cleaning section of said housing;

a third plurality of third nozzles located said rinsing section of said housing; and

a jet mechanism for jetting a ~~mist-like~~ cleaning liquid in a mist state with a high pressure  
20 from the ~~one nozzle or the plural nozzles~~ said second plurality of second nozzles to the member

to be cleaned.

2. (Currently Amended) The cleaning apparatus according to claim 1, wherein the member is cleaned with ~~the nozzles~~ one of said second nozzles disposed in an ~~directions~~ upward direction and another of said second nozzles disposed in a downward direction.

3. (Currently Amended) The cleaning apparatus according to claim 1, wherein particle size of the jetted ~~mist-like~~ cleaning liquid is 100  $\mu\text{m}$  or less.

4. (Currently Amended) The cleaning apparatus according to claim 1, wherein a pressure of the jetted ~~mist-like~~ cleaning liquid is in the range of from 0.2 to 0.4 MPa.

5. (Currently Amended) The cleaning apparatus according to claim 1, wherein the ~~mist-like~~ cleaning liquid is jetted in such a way that a gas is mixed into the cleaning liquid in a liquid state.

6. (Previously Presented) The cleaning apparatus according to claim 1, wherein the cleaning liquid is pure water added with surfactant.

7. (Previously Presented) The cleaning apparatus according to claim 1, wherein the cleaning liquid is pure water.

8. (Currently Amended) A cleaning system for cleaning a member used in the semiconductor field, the system comprising:

an endless conveyor for continuously transporting the member, said endless conveyor comprising a plurality of belt sections, each belt section being located at a spaced location from an adjacent belt section;

a housing having a first end and a second end, said endless conveyor extending through said housing;

an air curtain producing means for producing an air curtain at said first end of said housing;

a first water curtain producing means for producing a first water curtain in said housing;

a second water curtain producing means for producing a second water curtain in said housing;

a third water curtain producing means for producing a third water curtain in said housing, one end of said endless conveyor and said first end of said housing defining a loading

section for receiving the member, said air curtain and said first water curtain defining a precleaning section of said housing, said first water curtain and said second water curtain

defining a cleaning section of said housing, said second water curtain and said third water curtain defining a rinsing section of said housing, said third water curtain and said second end

of said housing defining a drying section of said housing, said second end of said housing and another end of said endless conveyor defining an unloading section for receiving the member

after the member has been cleaned;

a first plurality of first ~~one nozzle or plural~~ nozzles located in said precleaning section;

a second plurality of second nozzles located in said cleaning section of said housing;

a third plurality of third nozzles located said rinsing section of said housing;

25        a means for delivering cleaning liquid to said second plurality of second nozzles such  
that said cleaning liquid is delivered at a high pressure to form a cleaning liquid mist, said  
cleaning liquid mist being applied to the member via said second nozzles

~~a loader section for setting the member to be cleaned;~~

~~an unloader section for collecting the member; and~~

30        ~~a transport stage for continuously transporting the member from the loader section to~~  
~~the unloader section, wherein a cleaning section for cleaning the member with a mist-like~~  
~~cleaning liquid is provided on the transport stage.~~

9. (Currently Amended) The cleaning system according to claim 8, wherein ~~the~~  
~~cleaning section~~ said housing has an outer wall in the shape of a tunnel.

10. (Currently Amended) A cleaning system according to claim 8, further comprising:  
~~wherein the cleaning section is constituted of the cleaning apparatus according to claim 1~~

5        a drain collecting tank extending along a length of said endless conveyor, said drain  
collecting tank having a first collecting section, a second collecting section, a third collecting  
section and a fourth collecting section, said first collecting section being located opposite said  
precleaning section, said second collecting section being located opposite said cleaning section,

said third collecting section being located opposite said rinsing section, said fourth collecting section being located opposite said drying section, said first nozzles applying purified water to the member, said first collecting section receiving excess purified water applied to the member,  
10 said second collecting section receiving excess cleaning liquid, said third nozzles applying purified water to the member, said third collecting section receiving excess purified water;

a surfactant supply reservoir;

a mixing tank;

a first buffer tank connected to said second plurality of second nozzles and said mixing  
15 tank;

a second buffer tank connected to said first plurality of first nozzles;

a third buffer tank connected to said third plurality of third nozzles;

a pure water supply reservoir connected to said mixing tank, said second buffer tank and  
said third buffer tank, said mixing tank receiving surfactant via said surfactant supply reservoir  
20 and pure water via said pure water supply reservoir to form a chemical solution, said first buffer tank receiving said chemical solution via said mixing tank and said excess cleaning liquid via  
said second collecting section to form said cleaning liquid, said second nozzles receiving said  
cleaning liquid from said first buffer tank at an increased pressure such that said cleaning liquid  
is applied to the member in a mist state, said second buffer tank receiving pure water via said  
25 pure water supply reservoir and said excess purified water via said third collecting section to  
form said purified water, said first nozzles receiving said purified water via said second buffer tank, said third buffer tank receiving purified water from said pure water supply reservoir, said

third nozzles receiving said purified water via said third buffer tank; and

a main drain pipe, said first collecting section and said fourth collecting section being  
30 connected to said main drain pipe.

11. (Currently Amended) The cleaning system according to claim 8, wherein each belt  
section extends continuously in a longitudinal direction of said endless conveyor ~~a transport~~  
~~stage for continuously transporting the member to be cleaned from the loader section to the~~  
~~unloader section is a conveyor type transport apparatus.~~

12. (Currently Amended) The cleaning system according to claim 8, wherein ~~[[an]]~~  
said air curtain is ~~provided~~ located between the ~~loader~~ loading section and the precleaning  
section.

13. (Previously Presented) The cleaning system according to claim 8, wherein plural  
cleaning sections for cleaning the members with the mist-like cleaning liquid are consecutively  
disposed.

14. (Currently Amended) The cleaning system according to claim 13, wherein ~~the~~  
~~plural cleaning sections include at least a~~ said precleaning section ~~for cleaning~~ cleans the  
member with pure water; ~~a chemical solution cleaning section for cleaning the member with a~~  
~~chemical solution, and a rinse section.~~

15. (Currently Amended) The cleaning system according to claim 14, wherein ~~as the~~  
~~cleaning liquid supplied in the precleaning section, the cleaning liquid used in the~~ said rinse  
~~section is used~~ rinses the member with purified water.

16. (Currently Amended) The cleaning system according to claim 8, wherein ~~a water~~  
~~curtain is provided after the cleaning section~~ said one end of said endless conveyor is located  
at a spaced location from said first end of said housing, said another end of said endless  
conveyor being located at a spaced location from said second end of said housing.

17. (Currently Amended) The cleaning system according to claim 8, further comprising  
a drying means located in said drying section for drying the member and ~~wherein a drying~~  
~~section removing a liquid attached to the member to be cleaned by~~ via ~~air is installed after the~~  
~~member passes through the cleaning section.~~

18 - 23. (Canceled)

24. (New) A cleaning apparatus for cleaning a member used in the semiconductor field,  
the apparatus comprising:

an endless conveyor comprising a plurality of belt sections, each belt section being  
located at a spaced location from an adjacent belt section;

a drain collecting tank extending along a length of said endless conveyor, said drain

collecting tank having a first collecting section, a second collecting section, a third collecting section and a fourth collecting section;

a housing, said endless conveyor extending through said housing;

an air curtain producing means for producing an air curtain at one end of said housing;

10 a first water curtain producing means for producing a first water curtain in said housing;

a second water curtain producing means for producing a second water curtain in said housing;

a third water curtain producing means for producing a third water curtain in said housing, said air curtain and said first water curtain defining a precleaning section of said

15 housing, said first water curtain and said second water curtain defining a cleaning section of said

housing, said second water curtain and said third water curtain defining a rinsing section of said

housing, said third water curtain and another end of said housing defining a drying section of

said housing, said first collecting section being located opposite said precleaning section, said

second collecting section being located opposite said cleaning section, said third collecting

20 section being located opposite said rinsing section, said fourth collecting section being located

opposite said drying section;

a first plurality of first nozzles located in said precleaning section, said first nozzles applying purified water to the member, said first collecting section receiving excess purified water applied to the member;

25 a second plurality of second nozzles located in said cleaning section of said housing, said

second nozzles applying a cleaning liquid to the member, said second collecting section



receiving excess cleaning liquid;

a third plurality of third nozzles located said rinsing section of said housing, said third nozzles applying purified water to the member, said third collecting section receiving excess  
30 purified water;

a surfactant supply reservoir;

a mixing tank;

a first buffer tank connected to said second plurality of second nozzles and said mixing  
tank;

35 a second buffer tank connected to said first plurality of first nozzles;

a third buffer tank connected to said third plurality of third nozzles;

a pure water supply reservoir connected to said mixing tank, said second buffer tank and  
said third buffer tank, said mixing tank receiving surfactant via said surfactant supply reservoir  
and pure water via said pure water supply reservoir to form a chemical solution, said first buffer  
40 tank receiving said chemical solution via said mixing tank and said excess cleaning liquid via  
said second collecting section to form said cleaning liquid, said second nozzles receiving said  
cleaning liquid from said first buffer tank at an increased pressure such that said cleaning liquid  
is applied to the member in a mist state, said second buffer tank receiving pure water via said  
pure water supply reservoir and said excess purified water via said third collecting section to  
45 form said purified water, said first nozzles receiving said purified water via said second buffer  
tank, said third buffer tank receiving purified water from said pure water supply reservoir, said  
third nozzles receiving said purified water via said third buffer tank;

a main drain pipe, said first collecting section and said fourth collecting section being connected to said main drain pipe.